

## SNF Stabilization and Disposition (RL-0012)

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*The last rack coming out of K East.  
Rack removal completed on  
12/20/05, 48 days ahead of  
schedule.*

*Removal of canister  
lids at K West*



## Overview

This section addresses work in Project Baseline Summary (PBS) RL-0012, *Spent Nuclear Fuel Stabilization and Disposition*.

NOTE: Unless otherwise noted, all information contained herein is as of the end of December 2005.

## Notable Accomplishments

### SNF Stabilization and Disposition (PBS RL-0012)

**Sludge Retrieval and Transfer:** Progress continued ahead of schedule in the K East Basin. Rack removal was completed on December 20, 2005 (48 days ahead of schedule). K East debris unit removal is +124 units to plan (48 percent, 762 of 1594).

The installation of the sludge container overflow collection pumping system (SCOOPS) was completed; SCOOPS is now in operation with the sludge vacuuming system helping to maintain water clarity in the K East basin. K East sludge vacuuming is +621 cubic feet to the plan (7 percent, 621 of 8925).

Eight IP-2 containers and three roll-off boxes were shipped to the Environmental Restoration Disposal Facility (ERDF).

K West Basin progress for debris and canister lid removal also continues ahead of schedule. K West debris removal is +115 units to plan (44 percent, 405 of 914), and K West canister lid removal is +14 units to plan (74 percent, 5592 of 7636).

**Sludge Treatment:** The Request for Proposal for procurement of the Mobilization Solidification System (MOSS) was issued on December 15, 2005. The Corrosion System 60 percent design review was conducted, and Review Comment Records were informally delivered to British Nuclear Group of America (BNGA) on December 29, 2005.

## Issues

**Sludge Retrieval and Transfer:** The number of identified discrepancies associated with drawings and equipment, as well as the number of change notices required to correct the deficiencies has continued a downward trend, thereby taking the engineering effort off the critical path. This progress is reflected in the number of construction installation work package completions and the commencement of acceptance testing. This progress has allowed the project team to focus on the installation schedule and preparations for testing and readiness self assessments. The project is forecasting the start of sludge transfers on June 19, 2006, three days later than the baseline activity start milestone. Completion of the bulk sludge transfer is currently 238 days ahead of the DNFSB milestone 120E, due May 31, 2007.

**Sludge Treatment Project - 100K Area Seismic Analysis and Treatment System Design:** FH will provide a recommendation to RL in March 2006 on changes that may or may not be required to the treatment system design/facility modifications based on analysis that is ongoing. Actions in progress include a review of the existing facility (Cold Vacuum Drying Facility [CVDF]) seismic analysis and design margin; comparison and evaluation of the Waste Treatment Plant relative amplification factors on existing CVDF design margin; and evaluation/comparison of 100 Area and 200 Area soil column information. Ultimately, changes in this criteria will have an impact on cost and schedule for the treatment system design and facility installation.

**Tri Party Agreement Change Order:** The milestone dates for Tri-Party Agreement milestones listed in this report have been updated to reflect Change Order M-34-05-04, and are consistent with the updated baseline for the K Basins Closure (KBC) Project of November 7, 2005.

## FY 2006 Funds vs. Spend Forecast (\$M)

		Projected FY 2006 Funding	FY 2006 Fiscal Year Spend Forecast	Variance
RL-0012	SNF Stabilization & Disposition	\$ 122.9	\$ 123.5	\$ -0.7
<b>Total</b>		<b>\$ 122.9</b>	<b>\$ 123.5</b>	<b>\$ -0.7</b>

## FY 2006 Schedule/Cost Performance (\$M)

Schedule		Budgeted Cost of Work Scheduled	Budgeted Cost of Work Performed	Actual Cost of Work Performed	Schedule Variance \$	Schedule Variance %	Cost Variance \$	Cost Variance %	Budget At Completion
RL-0012	SNF Stabilization & Disposition	\$27.2	\$27.2	\$27.8	\$0.0	-0.1%	-\$0.6	-2.2%	\$119.9
<b>Total</b>		<b>\$27.2</b>	<b>\$27.2</b>	<b>\$27.8</b>	<b>\$0.0</b>	<b>-0.1%</b>	<b>-\$0.6</b>	<b>-2.2%</b>	<b>\$119.9</b>

Numbers are rounded to the nearest \$0.1M and include the closure services allocation.

**Performance (-\$0.0M/-0.1%):** The variance is due to:

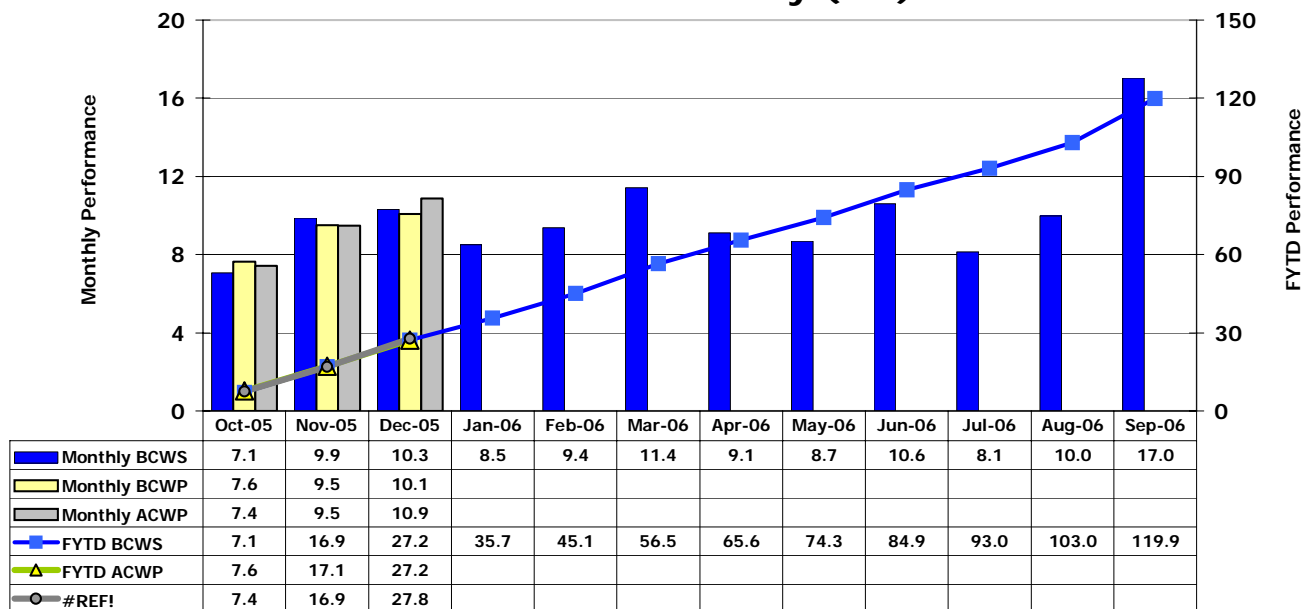
- K East and K West Rack and Debris removal ahead of plan (+\$0.5M).
- D&D Ion Exchange Module (IXM) procurement completed earlier than planned and One-Time Request for Shipment (OTRS) activities ahead of schedule (+\$0.2M).
- Transfer system procurement and construction activities (-\$0.3M).
- K West Construction activities (-\$0.2M).
- K East and K West found fuel activities (-\$0.2M).

**Cost Performance (-\$0.6M/-2.2%):** The variance is due to:

- Labor overruns in Safe and Compliant (S&C) as a result of incorrect charging; revised charging authorization have been distributed (-\$0.6M).
- Canister Storage Building charges to KBC; being corrected (-\$0.1M).
- K West Discharge Chute labor cost (-\$0.1M).
- K East and K West Rack and Debris removal costing less than plan (+\$0.6M).
- Sludge Treatment PNNL/Nuclear Safety charged elsewhere (being corrected) (+\$0.1M).
- Sludge Treatment BNGA accrual less than planned (no fee accrued) (+\$0.3M).
- Hose-in-Hose/K West Retrieval engineering and construction activities (-\$0.5M).
- Sludge Management – K East rack removal, crane and rigging, and PNNL Nuclear Safety cost incorrectly charged to sludge management, will be corrected (-\$1.1M).
- D&D resources utilized in other KBC subprojects (+\$0.7M).
- Closure Services (+\$0.1M).

## FY 2006 Schedule/Cost Performance (\$M), continued

### Performance Analysis FYTD and Monthly (\$M)



## Milestone Achievement

Number	Milestone Title	Type (TPA/PI/DNFSB)	Due Date *	Actual Date	Forecast Date	Status / Comments
M-034-33B (S10-05-018)	Complete K East Sludge Containerization	TPA	03/01/05		09/19/06	Behind Schedule: not included in TPA change
RL-12-1.b (S10-99-082)	Transfer K East Sludge to K West Containers	PI	11/30/05		02/05/07	Behind Schedule
RL-12-1.bb (S10-99-963)	Transfer Found Fuel and Fuel Scrap from K East to K West	PI	11/30/05		11/09/06	Behind Schedule
M-034-34 (S10-05-010)	Complete Removal of K East Sludge	TPA	05/31/07		02/05/07	Ahead of Schedule
RL-12-1.ce (S10-99-978)	Complete K East Water Removal	PI	01/31/06		11/02/07	Behind Schedule
RL-12-1.ca (S10-99-967)	Encapsulate 3 K East Bays	PI	02/28/06		07/07/09	Behind Schedule
RL-12-1.cb (S10-99-968)	Remove K East Superstructure	PI	06/30/06		08/14/08	Behind Schedule
M-034-35a (S10-05-011)	Containerize K West Sludge	TPA	07/31/07		01/18/07	Ahead of Schedule
M-034-35b (S10-05-011)	Complete Final Pass	TPA	01/31/08		02/15/07	Ahead of Schedule
RL-12-1.cc (S10-99-969)	Complete First K East Basin Section Disposal	PI	07/31/06		12/12/08	Behind Schedule
RL-12-1.bd (S10-99-965)	Commencement of Floor and Canister Sludge Treatment	PI	07/31/06		05/27/08	Behind Schedule
RL-12-1.ci (S10-99-971)	Decon/Immobilize K West Basin Wall (7600 sq. ft.)	PI	08/31/06		12/28/09	Behind Schedule
RL-12-1.bc (S10-99-081)	Remove Found Fuel and Scrap	PI	09/30/06		07/18/08	Behind Schedule
RL-12-1.cf (S10-99-972)	Complete K East Basin Removal	PI	09/30/06		07/07/09	Behind Schedule
DNFSB 119E (S10-05-014)	Complete K East Sludge Consolidation	DNFSB	10/31/06		09/19/06	Ahead of Schedule
DNFSB 120E (S10-05-015)	Complete K East Basin Sludge Removal	DNFSB	05/31/07		02/05/07	Ahead of Schedule
DNFSB 122E	K East Final Pass Sludge Removed	DNFSB	05/31/07		03/26/07	Ahead of Schedule
DNFSB 119W (S10-05-016)	Complete K West Sludge Containerization	DNFSB	07/31/07		05/14/07	Ahead of Schedule

\* DNFSB dates reflect IP update; TPA dates reflect change package M-34-05-04; forecast dates are current working level schedules.